

# INSTALLATION INSTRUCTIONS

# MODEL SBR BELT CLEANER



Please read and save these instructions. Read carefully before attempting to assemble, install, operate or maintain the product described. Protect yourself and others by observing all safety information. Failure to strictly follow all instructions may result in DEATH or SERIOUS INJURY. Before servicing, shut down and physically lock-out the conveyor system. Disconnect power before servicing.



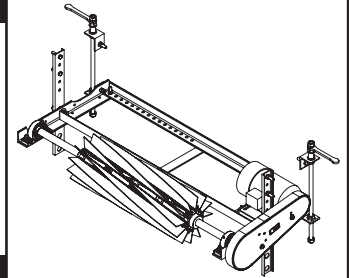
**Conveyor Components Company**

Division of Material Control, Inc. | Crosswell, Michigan U.S.A.

# MODEL SBR BELT CLEANER

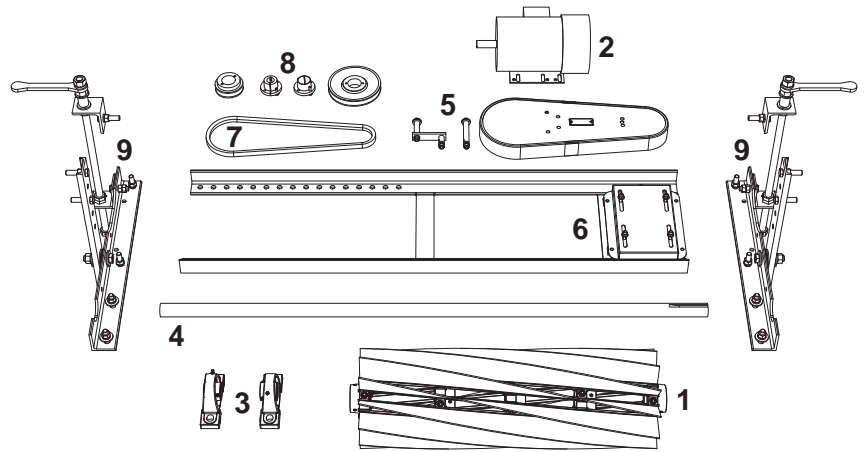
## TOOLS NEEDED

- Adjustable wrenches
- 7/16", 9/16", 3/4" and 15/16" wrenches
- 5/32", 5/64" and 1/4" hex keys
- 9/16" & 1-1/16" drill bits
- Electric drill
- Mallet or Hammer
- Metal cutting saw
- Tape measurer
- Pencil, marker or scribing tool



## PARTS INCLUDED

1. Brush
2. Electric Motor
3. 2 Pillow Block Bearings
4. Brush Shaft
5. Belt Guard & Support Hardware
6. H-Frame & Motor Base
7. V-Belt
8. 2 Sheaves with Tapered Bushings
9. Side Frame Assemblies



## INSTALLATION

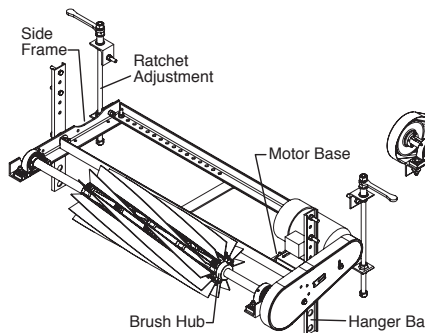


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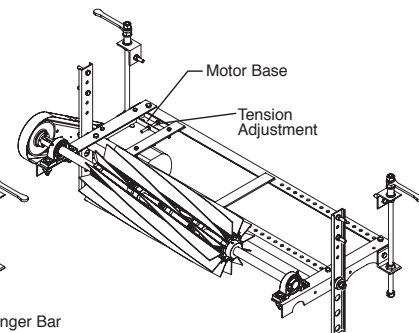
**STEP 1 CONFIGURATION:** These instructions illustrate the SBR assembled with the motor mounted on top of the frame and on the left side of the conveyor, and with the brush assembly mounted on the inside of the side frames [Figure 1].

- a. The motor can be mounted on the right side or left side depending on space constraints. The H-Frame and brush assembly must be oriented so that the motor base and the brush shaft keyway are on the chosen drive side.
- b. If space constraints require, the motor may be mounted beneath the frame. The side frame assemblies must be mounted as shown in Figure 2 so that the brush is to the front when the side frames are facing angle side down. In this configuration, the SBR side frames can run closer and more parallel to the conveyor.
- c. If space constraints require, the brush bearings may be mounted on the outside of the side frames as shown in Figure 2. Different mounting holes on the belt guard must be used [Figure 7].

The hanger bar and H-Frame have a series of mounting holes to fit different sized applications. Depending on the size of your application and space constraints, you may need to cut excess material from the hanger bar, shaft and H-frame.



**Figure 1:** SBR configured with the motor mounted on top of the frame and the brush bearings mounted to the inside of the side frame

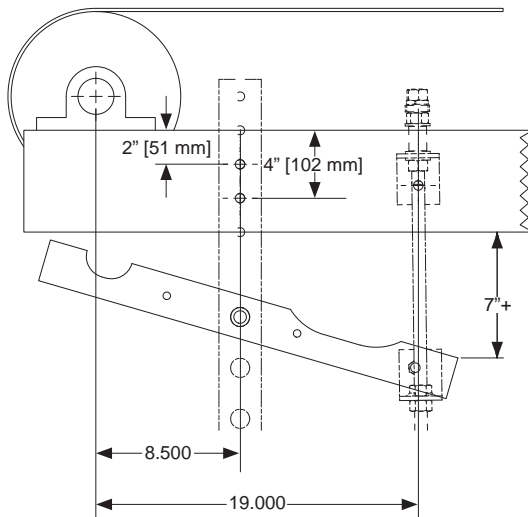


**Figure 2:** SBR configured with the motor mounted beneath the frame and the brush bearings mounted to the outside of the side frame

## STEP 2 MOUNT SIDE ASSEMBLIES:

1. Locate centerline of head pulley on the conveyor.
2. From centerline, measure 8-1/2" inches horizontally and mark a line vertically.
3. Drill a 9/16" hole 2" inches and 4" inches from the top of conveyor frame on the marked line. [Figure 3].
4. Mount the side assembly using the bolts in the hanger bar.
5. Measure 19" inches from centerline of head pulley and mark a line vertically.
6. Drill on 9/16" hole on the vertical line for the ratchet adjustment. [Figure 3].
  - a. If the motor is being mounted on top of the frame there should be a minimum of 7" inches of clearance between the side frame in the side assembly and the bottom surface of the conveyor frame at the ratchet adjustment.
7. Fasten Ratchet adjustment assembly to conveyor.
8. Repeat for the other side of the conveyor.

Figure 3: Hole Pattern



## STEP 3 ATTACH H-FRAME AND MOTOR:

1. Fit the H-frame to outside of the side frames to identify which set of bolt holes on the H-Frame will need to be used. The side frames can be adjusted at the hanger bar connection by using the washers for spacing to allow the H-frame bolt holes to align properly.
2. Remove the H-frame from the side frames and cut off the excess H-frame material 1" [25mm] from the center of the bolt holes to be used. [Figure 4].
3. Mount the H-frame and motor base to the inside of the side frames as shown in Figure 5.
4. Slide the tapered bushing onto the motor approximately flush with the end of the shaft and tighten the set screw to secure the key in the keyway. [Figure 6].
5. Mount the small sheave onto the tapered bushing using the included hardware. [Figure 6]
6. Mount the electric motor to the motor base using the slotted holes on the motor.

Figure 4: Trimming the H-Frame

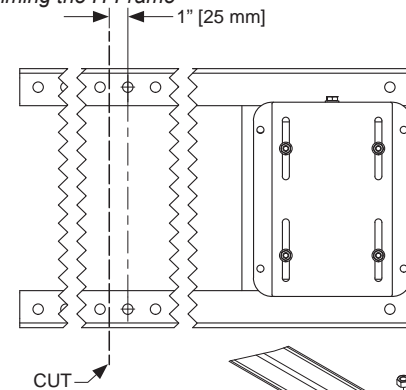
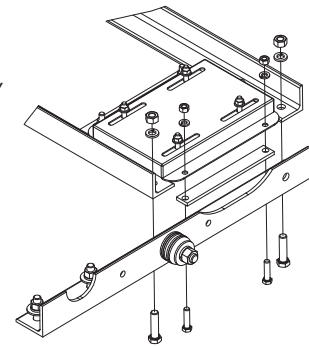


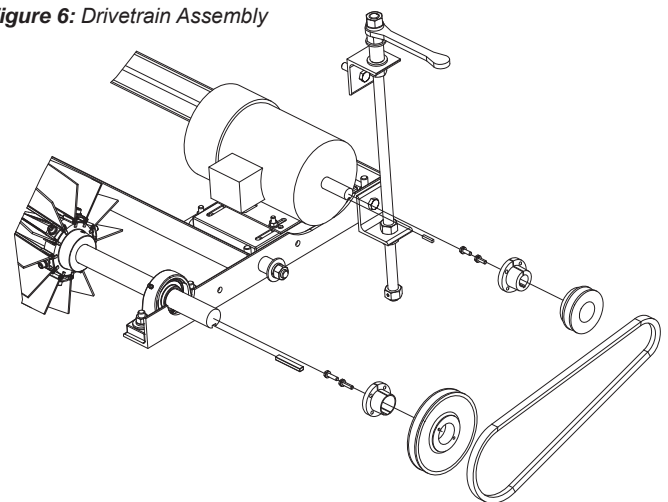
Figure 5: Frame Assembly



## STEP 4 ATTACH BRUSH:

1. Slide the brush shaft through the brush assembly. Do not tighten the set screws.
2. Slide the pillow block bearings onto each end of the brush shaft.
3. Slide the tapered bushing onto the brush shaft approximately flush with the end of the shaft and tighten the set screw to secure the key in the keyway. [Figure 6].
4. Mount the large sheave onto the tapered bushing with the included hardware. [Figure 6].
5. Bolt the pillow block bearings to the frame as shown in figure 6.
6. Adjust the shaft positioning so that the brush sheave aligns with the motor sheave. Then tighten down the set screws in pillow block bearings (2 per bearing).
7. Align the brush so that the bristles cover the entire conveyor belt width. Tighten down the set screws in the brush hubs (2 per hub)
8. Cut off any excess shaft material.

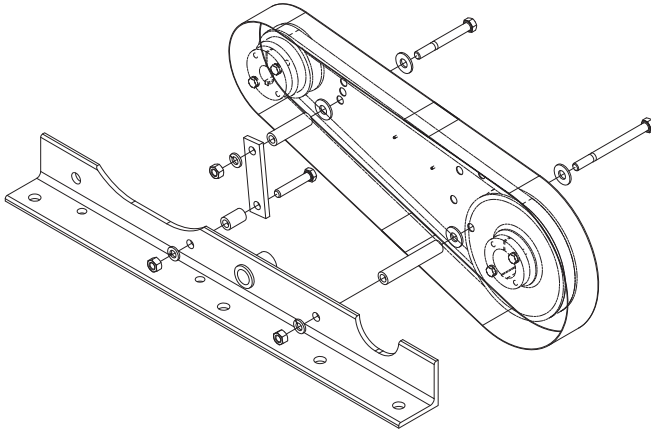
Figure 6: Drivetrain Assembly



### STEP 5 BELT:

1. Loosen the nuts holding the motor to the motor base.
2. Slide the V-Belt onto the sheaves as shown in Figure 6.
3. Tighten the motor base tension adjustment until the belt slack is taken up.
4. Re-tighten the nuts holding the motor to the motor base once the tension is fully adjusted.

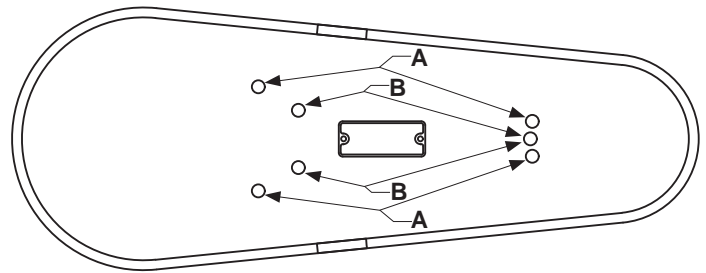
*Figure 7: Belt Guard Assembly*



### STEP 6 ATTACH BELT GUARD:

1. Mount the guard over the sheaves and belt using the support hardware as shown in Figure 7. Make sure the sheaves and belt do not contact the guard or mounting hardware.
  - a. If the pillow blocks are mounted on the inside of the side frames [figure 1], use mounting holes 'A'. [Figure 8]
  - b. If the pillow blocks are mounted on the outside of the side frames [Figure 2], use mounting holes 'B'. [Figure 8]

*Figure 8: Belt Guard Mounting Holes*



### STEP 7:

1. Wire the electric motor so that the brush sweeps in the opposite direction of the belt travel. The electric motor should be wired to stop and start with the conveyor.
2. Use the ratchets to adjust the brush height so that it just touches conveyor belt. The SBR typically cleans best when the bristles lightly sweep the belt, flicking carryback back into the material stream. Excessive bristle pressure will cause the bristles to wear faster.
3. Now the Compact Model SBR is ready to go.



# Conveyor Components Company

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